

REMARKS

After entry of this amendment, claims 1-6 and 8-34 are pending. In the present Office Action, claims 1-23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Thayer et al., U.S. Patent No. 5,168,568 ("Thayer"). Applicants respectfully traverse this rejection and request reconsideration.

Claims 1-6 and 8-23

Applicants respectfully submit that each of claims 1-6 and 8-23 recites a combination of features not taught or suggested in Thayer. For example, claim 1 recites a combination of features including: "said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by the system".

The present Office Action alleges that the first agent is the CPU 12 shown in Fig. 6 of Thayer, and that "said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by the system" is taught in Thayer at column 12, lines 39-44. However, these teachings are: "all devices in the system of Fig. 6, including the motherboard processor 12 and the coprocessor 12a, are allowed to participate in the arbitration for bus access. Due to the extensive bus requirements of processor modules, the processors 12 and 12a are assigned the lowest levels of arbitration priority, so that less demanding devices are not starved" (Thayer, col. 12, lines 39-44). Thus, Thayer teaches that the processors 12 and 12a are fixed at a lower priority than other devices in the system. To implement fairness, Thayer further teaches that an high-priority arbitration winner must inhibit arbitrating until an arbitration cycle passes in which no device requests bus access (see, e.g., Thayer col. 5, line 67-col. 6, line 4). This does not teach or suggest "said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by the system" as recited in claim 1.

For at least the above stated reasons, Applicants submit that claim 1 is patentable over Thayer. Claims 2-6 and 8-9, being dependent from claim 1, are similarly patentable

over Thayer for at least the above stated reasons. Each of claims 2-6 and 8-9 recite additional combinations of features not taught or suggested in Thayer.

Claim 10 recites a combination of features including: "said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by said plurality of agents". The teachings of Thayer, highlighted above, do not teach or suggest the above highlighted features of claim 10. Accordingly, Applicants submit that claim 10 is patentable over Thayer. Claims 11-15, being dependent from claim 10, are similarly patentable over Thayer for at least the above stated reasons. Each of claims 11-15 recite additional combinations of features not taught or suggested in Thayer.

Claim 16 recites a combination of features including: "said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by said plurality of agents". The teachings of Thayer, highlighted above, do not teach or suggest the above highlighted features of claim 16. Accordingly, Applicants submit that claim 16 is patentable over Thayer. Claims 17-23, being dependent from claim 16, are similarly patentable over Thayer for at least the above stated reasons. Each of claims 17-23 recite additional combinations of features not taught or suggested in Thayer.

New Claims

Applicants respectfully submit that each of new claims 24-34 recites a combination of features not taught or suggested in Thayer. For example, claim 24 recites a combination of features including: "a plurality of agents coupled to said bus, each of the plurality of agents configured to arbitrate for said bus, and wherein a predetermined first agent of said plurality of agents is a default winner of an arbitration if none of said plurality of agents arbitrates for said bus during said arbitration, wherein said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by the system". Claims 25-29 depend from claim 24, and recite additional combinations of features not taught or suggested in Thayer. Claim

30 recites a combination of features including: "a first circuit coupled to receive a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of a plurality of agents coupled to said bus and indicative of whether or not said respective agent is arbitrating for said bus, wherein said first circuit is configured to grant use of said bus to a first agent if none of said plurality of agents is arbitrating for said bus, said first agent predetermined to be granted use of said bus if none of said plurality of agents is arbitrating for said bus, wherein said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by said plurality of agents". Claims 31-34 depend from claim 30, and recite additional combinations of features not taught or suggested in Thayer.

Information Disclosure Statement (IDS)

Applicants are in receipt of the PTO-1449 form from the IDS filed May 23, 2001 in the captioned application (and received by the PTO on May 25, 2001, according to the OIPE date stamp on the PTO-1449 form). However, the Examiner's initials are missing next to reference A3. Since reference A3 is also not crossed out, Applicants believe the missing initials are merely an oversight. Applicants submit herewith a copy of the PTO-1449 returned with the present Office Action, with the missing initials highlighted.

Applicants respectfully request that the Examiner return the enclosed PTO-1449 form with the missing initials supplied to evidence consideration of reference A3.

CONCLUSION


Applicants submit that the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5580-00700/LJM.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Request for Approval of Drawing Changes
- ☐ Notice of Change of Address
- ☒ Marked-up Copy of Amended Claims
- ☐ Marked-up Copy of Amended Paragraphs
- ☒ Fee Authorization Form authorizing a deposit account debit in the amount of \$528 for fees (\$168 for two excess independent claims, \$180 for 10 excess claims over 20, and \$180 IDS Fee).
- ☒ Other: IDS including PTO-1449 form and cited references, copy of previously returned PTO-1449 form

Respectfully submitted,



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1. (Amended) A system comprising:

a bus; and

a plurality of agents coupled to said bus, each of the plurality of agents configured to arbitrate for said bus, and wherein a predetermined first agent of said plurality of agents is a default winner of an arbitration if none of said plurality of agents arbitrates for said bus during said arbitration, wherein said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by the system.

8. (Amended) The system as recited in claim [7] 1 further comprising one or more arbiters configured to perform said arbitration, wherein said one or more arbiters are configured to maintain a state indicative of an arbitration priority of said plurality of agents, and wherein an agent winning an arbitration is changed to lowest priority in said arbitration priority.

10. (Amended) An arbiter for a bus comprising:

a first circuit coupled to receive a plurality of request signals, each of said plurality of request signals corresponding to a respective agent of a plurality of agents coupled to said bus and indicative of whether or not said respective agent is arbitrating for said bus, wherein said first circuit is configured to grant use of said bus to a first agent if none of said plurality of agents is arbitrating for said bus, said first agent predetermined to be granted use of said bus if none of said plurality of agents is arbitrating for said bus, wherein said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by said plurality of agents.

13. (Amended) The arbiter as recited in claim 10 further comprising a second circuit configured to determine if said first agent wins an arbitration for said bus if at least one of said plurality of agents is arbitrating for said bus, and wherein said second circuit is configured to determine if said first agent wins said arbitration according to said [a predetermined] arbitration scheme [in which said first agent is an equal participant with other ones of said plurality of agents].

16. (Amended) A method comprising:

granting use of a bus to a first agent of a plurality of agents responsive to none of said plurality of agents arbitrating for said bus, said first agent predetermined to be granted use of said bus if none of said plurality of agents is arbitrating for said bus, wherein said first agent is an equal arbitration participant with other ones of said plurality of agents in an arbitration scheme implemented by said plurality of agents.

22. (Amended) The method as recited in claim 21 further comprising determining a winner of an arbitration according to [a predetermined] said arbitration scheme.

23. (Amended) The method as recited in claim 22 wherein said [predetermined] arbitration scheme includes maintaining a priority for each of said plurality of agents, and wherein said winner is made lowest priority, the method further comprising making said first agent lowest priority responsive to said first agent using said bus in response to said granting.